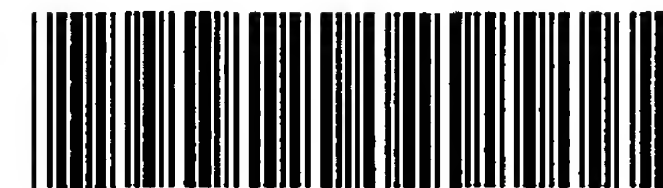


0590
0425

6



OIPE

RAW SEQUENCE LISTING

PATENT APPLICATION: US/10/052,589

DATE: 04/11/2002

TIME: 13:46:12

Input Set : A:\264734200.txt

Output Set: N:\CRF3\04112002\J052589.raw

ENTERED

3 <110> APPLICANT: Perez, Dianne
 4 Zuscik, Michael
 6 <120> TITLE OF INVENTION: Model systems for neurodegenerative and cardiovascular disorders

8 <130> FILE REFERENCE: 26473/04200

10 <140> CURRENT APPLICATION NUMBER: US 10/052,589

11 <141> CURRENT FILING DATE: 2002-01-18

13 <150> PRIOR APPLICATION NUMBER: US 09/568,255

14 <151> PRIOR FILING DATE: 2000-05-10

16 <160> NUMBER OF SEQ ID NOS: 3

18 <170> SOFTWARE: PatentIn version 3.0

20 <210> SEQ ID NO: 1

21 <211> LENGTH: 2048

22 <212> TYPE: DNA

23 <213> ORGANISM: Mesocricetus sp.

25 <400> SEQUENCE: 1

26	gggcggactc	taaaatgaat	cccgatctgg	acaccggcca	caacacatca	gcacctgccc	60
28	aatggggaga	gttgaaagat	gccaaacttca	ctggcccca	ccagacctcg	agcaactcca	120
30	cactgcccc	gctggacgtt	accagggcca	tctctgtggg	cctgggtgctg	ggcgccttca	180
32	tcctctttgc	cattgtgggc	aacatcctgg	tcctcctgtc	agtggcctgc	aatcggcacc	240
34	tgcggacgcc	caccaactac	ttcattgtca	acctggccat	tgctgacctg	ctgttgagtt	300
36	tcacagtcc	gcccttctcc	gctaccctag	aagtgccttg	ctactgggtt	ctggggcgca	360
38	tcttctgtga	catctgggca	gcggtggacg	tcctgtgctg	tacggcctcc	atcctgagcc	420
40	tatgtgccat	ctccattgat	cgctacattg	gggtgcgcta	ctctctgcag	tacccactc	480
42	tggtcaccgc	caggaaggcc	atcttggcac	tcctcagtgt	gtgggttttg	tccacggtca	540
44	tctccatcgg	gcctctcctt	ggatggaaag	aaccagcgcc	caacgacgac	aaggaatgcg	600
46	gagtcaccga	agaacccttc	tatgccctct	tttccctcct	gggtccttc	tacatccac	660
48	tcgcggtc	tctgggtcatg	tactgcggg	tctacatcgt	ggccaagagg	accaccaaga	720
50	acctggaggc	tggagtc	atgagatgt	ccaactccaa	ggagctgacc	ctgaggatcc	780
52	actccaagaa	ctttcatgag	gacaccctca	gcagtaccaa	ggccaagggc	cacaaccca	840
54	ggagttccat	agctgtcaaa	ctttttaagt	tctccaggga	aaagaaagca	gccaaaacct	900
56	tgggcattgt	ggtcggaatg	ttcatcttgt	gttggctccc	cttcttcac	gctctccac	960
58	ttgggtccct	gttctccact	ctcaagcccc	cggacgccgt	gttcaagggtg	gtattctggc	1020
60	tgggctactt	caacagctgc	ctgaaccccc	tcctctaccc	gtgctccagc	aaggagtcca	1080
62	agcgcgcctt	catgcgtatc	cttgggtgcc	agtgcgtag	tggccgtcgc	cgcgcgcgc	1140
64	gccgtcgtct	gggcgcgtgc	gcttacacct	atcgcccggtg	gacgcgcggc	ggctcgtctg	1200
66	agcgatcgca	gtcggggaag	gactccctgg	acgacagcgg	cagctgcatg	agtggcagcc	1260
68	agaggaccct	gccctcggcg	tcgcccagcc	cgggctacct	gggtcgcgga	gcgcagccac	1320
70	cactggagct	gtgcgcctac	cccgaatgga	aatccggggc	tctgctcagt	ctgccagagc	1380
72	ctccgggtcg	ccgcggtcgc	ctcgactctg	ggccctctt	cactttcaag	ctcttgggag	1440
74	agccggagag	cccgggcggg	cagcccggtt	tcaagagcaa	catgcctctg	gcacccgggc	1500
76	acttttaggg	tcctttttct	ttccccaca	cacacccag	gggggaggac	accattgttg	1560
78	ggggcgggg	catggggggg	agtgtcagcc	ccgggtagac	acagggtcgc	aagggtacaa	1620
80	ggggggagg	gggcggggag	aggggcagct	gcttttctgg	caggggcatg	gctgccaggt	1680

RAW SEQUENCE LISTING

PATENT APPLICATION: US/10/052,589

DATE: 04/11/2002

TIME: 13:46:12

Input Set : A:\264734200.txt

Output Set: N:\CRF3\04112002\J052589.raw

```

82 acagcggaga gctggctgcg catgctgaga gcctggggac ccacccccaa cgctggccgg 1740
84 gacttaagtc tctctcttct ctctctctgt atatatataa agagtccttc tatacgtatt 1800
86 tatctgtggg tacacgtgcg tgtgtctgtg cgggtcaacgt gtgggctgca tggatgtgtg 1860
88 ttggggggcct gcccaactgc gcgtgctggg gcagagcgag tgtgtgccct ggcaatgtca 1920
90 ggtttgttgt ttgtctcttg acttgtacct ctcaagcccc tccttgttct ctgggtcaatg 1980
92 ctggcatttt gatgggggtg gaaaccaagt cagatattaa aaatcatttc tcgtgaaaaa 2040
94 aaaaaaaaaa 2048
97 <210> SEQ ID NO: 2
98 <211> LENGTH: 497
99 <212> TYPE: PRT
100 <213> ORGANISM: Mesocricetus sp.
102 <400> SEQUENCE: 2
104 Met Asn Pro Asp Leu Asp Thr Gly His Asn Thr Ser Ala Pro Ala Gln
105 1 5 10 15
107 Trp Gly Glu Leu Lys Asp Ala Asn Phe Thr Gly Pro Asn Gln Thr Ser
108 20 25 30
110 Ser Asn Ser Thr Leu Pro Gln Leu Asp Val Thr Arg Ala Ile Ser Val
111 35 40 45
113 Gly Leu Val Leu Gly Ala Phe Ile Leu Phe Ala Ile Val Gly Asn Ile
114 50 55 60
116 Leu Val Ile Leu Ser Val Ala Cys Asn Arg His Leu Arg Thr Pro Thr
117 65 70 75 80
119 Asn Tyr Phe Ile Val Asn Leu Ala Ile Ala Asp Leu Leu Leu Ser Phe
120 85 90 95
122 Thr Val Leu Pro Phe Ser Ala Thr Leu Glu Val Leu Gly Tyr Trp Val
123 100 105 110
125 Leu Gly Arg Ile Phe Cys Asp Ile Trp Ala Ala Val Asp Val Leu Cys
126 115 120 125
128 Cys Thr Ala Ser Ile Leu Ser Leu Cys Ala Ile Ser Ile Asp Arg Tyr
129 130 135 140
131 Ile Gly Val Arg Tyr Ser Leu Gln Tyr Pro Thr Leu Val Thr Arg Arg
132 145 150 155 160
134 Lys Ala Ile Leu Ala Leu Leu Ser Val Trp Val Leu Ser Thr Val Ile
135 165 170 175
137 Ser Ile Gly Pro Leu Leu Gly Trp Lys Glu Pro Ala Pro Asn Asp Asp
138 180 185 190
140 Lys Glu Cys Gly Val Thr Glu Glu Pro Phe Tyr Ala Leu Phe Ser Ser
141 195 200 205
143 Leu Gly Ser Phe Tyr Ile Pro Leu Ala Val Ile Leu Val Met Tyr Cys
144 210 215 220
146 Arg Val Tyr Ile Val Ala Lys Arg Thr Thr Lys Asn Leu Glu Ala Gly
147 225 230 235 240
149 Val Met Lys Glu Met Ser Asn Ser Lys Glu Leu Thr Leu Arg Ile His
150 245 250 255
152 Ser Lys Asn Phe His Glu Asp Thr Leu Ser Ser Thr Lys Ala Lys Gly
153 260 265 270
155 His Asn Pro Arg Ser Ser Ile Ala Val Lys Leu Phe Lys Phe Ser Arg
156 275 280 285
158 Glu Lys Lys Ala Ala Lys Thr Leu Gly Ile Val Val Gly Met Phe Ile

```

RAW SEQUENCE LISTING

PATENT APPLICATION: US/10/052,589

DATE: 04/11/2002

TIME: 13:46:12

Input Set : A:\264734200.txt

Output Set: N:\CRF3\04112002\J052589.raw

```

159      290      295      300
161 Leu Cys Trp Leu Pro Phe Phe Ile Ala Leu Pro Leu Gly Ser Leu Phe
162 305      310      315      320
164 Ser Thr Leu Lys Pro Pro Asp Ala Val Phe Lys Val Val Phe Trp Leu
165      325      330      335
167 Gly Tyr Phe Asn Ser Cys Leu Asn Pro Ile Ile Tyr Pro Cys Ser Ser
168      340      345      350
170 Lys Glu Phe Lys Arg Ala Phe Met Arg Ile Leu Gly Cys Gln Cys Arg
171      355      360      365
173 Ser Gly Arg Arg Arg Arg Arg Arg Arg Arg Arg Leu Gly Ala Cys Ala Tyr
174      370      375      380
176 Thr Tyr Arg Pro Trp Thr Arg Gly Gly Ser Leu Glu Arg Ser Gln Ser
177 385      390      395      400
179 Arg Lys Asp Ser Leu Asp Asp Ser Gly Ser Cys Met Ser Gly Ser Gln
180      405      410      415
182 Arg Thr Leu Pro Ser Ala Ser Pro Ser Pro Gly Tyr Leu Gly Arg Gly
183      420      425      430
185 Ala Gln Pro Pro Leu Glu Leu Cys Ala Tyr Pro Glu Trp Lys Ser Gly
186      435      440      445
188 Ala Leu Leu Ser Leu Pro Glu Pro Pro Ser Arg Arg Gly Arg Leu Asp
189      450      455      460
191 Ser Gly Pro Leu Phe Thr Phe Lys Leu Leu Gly Glu Pro Glu Ser Pro
192 465      470      475      480
194 Gly Gly Gln Pro Gly Phe Lys Ser Asn Met Pro Leu Ala Pro Gly His
195      485      490      495

```

197 Phe

200 <210> SEQ ID NO: 3

201 <211> LENGTH: 3450

202 <212> TYPE: DNA

203 <213> ORGANISM: Mus musculus

205 <400> SEQUENCE: 3

```

206 tcgactgcc agtgcccttt gcctctgcac catctccatg atcaatgagc taaggtagcca 60
208 ggagctccaa caggttcaca ctaccacaaa cctcaaaaat aggcatctct tatgttttaa 120
210 tctctaaagg cagcttaggt aagatagttg aaatgagggc agggactgtt ttcaaagcta 180
212 tctgaatcat tgtttgtttg tttgtttgtt tgttatctca gagaaactcc ttagaattgt 240
214 atattttgtg caactggaga gcttgtgcc a tttttaatag gagattaagg accttaaagc 300
216 tatagtgggt gatacatgct tgtaacaaca aactaagag gctgggaaaa gaggaagatt 360
218 atcatgatth tggggccagc ctgggcta aataagttct aggccagcct aggcccaagt 420
220 aagaccatct ctcaaacaag caatcaaagg ctggagagtt gtctcagcag ataagggcat 480
222 ttggtgctct tgcagaggac tcgggtccaa tcccaccac ccaaatggtg gctcacaacc 540
224 atcccaactt cagcttcaga ggaccccatg cccatctgtc aactttcaca ggcagcaaag 600
226 caggcaatga atgtaatact cacacgcaa aaaaaaaaaa aaaaaaaaaa gacagtaaat 660
228 taaaagaaac aaataaaca aaaacgta a tttctccaa aagtacaagc aaaaagactt 720
230 caaaagccca actttaggct gaagaacttg cacaggaacc gccttgcatg gccctgctt 780
232 ccttgccctt taatcaaaat acagcgacta tcaaaagcag aaattagaag cctgggccat 840
234 ggcttgtgga ctggaagaaa tgggtatcag gtgtctcctt gcaattcagc agccactgcc 900
236 ctgtcccttg cctcatgtca ctagcatatg actaactctc tgatctactg ttttctcgtg 960
238 tgtccacaga gagcagtgat gcctctctct caaagacttg ttaaagaaaa ataaaagaaa 1020
240 ataagtaagc tgggtgtggt gtcttatgct tgtaatccaa gcactgggga ggtggggggc 1080

```

RAW SEQUENCE LISTING

PATENT APPLICATION: US/10/052,589

DATE: 04/11/2002

TIME: 13:46:12

Input Set : A:\264734200.txt

Output Set: N:\CRF3\04112002\J052589.raw

242	aacggatttt	ggggtttggg	acaatatattgg	tctgcatagt	gagctcaaga	ccagtgtgag	1140
244	ctacacagca	agaaaaggga	agagaagaga	agagaagaga	agagaagaga	ggagaggaga	1200
246	ggagaggaga	ggagagagag	aggagaggag	aggagaggag	aggagaggag	ggagaggaga	1260
248	ggaggggaga	gaaataagta	aatgtttgat	gaacagtagg	agctcagcaa	atgtgggttc	1320
250	cttcccagta	gcactaactt	gagcccaaaa	atgagccatt	taaaaaaaaa	gccaagtta	1380
252	taacattttac	tctatcccct	atthttgctcc	tatagaaacg	gtgactcttc	tatggctcag	1440
254	tactcagcac	tagaataagg	aaaccagta	atgacattca	actccaactc	acccttcctc	1500
256	tcctcaatag	gcatatgtac	ttgaaaaaaa	cggctcaact	cccttatcac	acgggtccca	1560
258	tcctcaaaaac	agaaatcaaa	atgagactag	ttctctcatc	aagtcgggag	aaaaggcagc	1620
260	atgaacgtag	cacatggtct	agcatctaag	tattgggaga	cagagaatct	tgagttcaaa	1680
262	accaacctga	agaccttctt	tctttttttt	tttttttttt	tttttttttg	aagaccttct	1740
264	ttctaaaaac	aaacaaaaca	aacaaacaag	aaaattcttc	cctggtttga	cttttttctt	1800
266	cttccctttt	gtaattaccc	acctctggaa	atagggtttg	tagcctaata	gcctacatgt	1860
268	atacaaggca	atacaagaaa	agagccaaca	ggcaagacct	cccccccaa	gtcccttccc	1920
270	caggatttgg	caatcagtc	tcactctcta	ctcccagaga	tacaactagc	tcctctcac	1980
272	ccttccctcc	cttccctcc	ccttccctcc	ttccctcctt	ccctccttcc	ctccctcctt	2040
274	cctccctcct	tcctccctc	cctcaactat	ctcttttagt	gacaacccca	agcccttctt	2100
276	taaaatgtca	agttcagcct	agagatgctg	ctcacttggt	agagtatgtg	cttgccctaga	2160
278	atgcacgaag	ccctgaattc	catccccagt	atcaaataaa	ccaaccacgg	cgggtacatgc	2220
280	ttgtaatcc	agcactcagg	aggtggccat	aggaaaatca	agagttcaaa	ggtattcttg	2280
282	tgttatacag	tgagctggag	ggcaacctga	gctacatcat	actctgtcat	taaaaaaaaa	2340
284	aatccaatt	catattcttc	cataccctgg	ttgcatttct	ctgtccctcaa	ttaattcttct	2400
286	cctaaactcc	tgtcattaga	tgtctcgctt	cagattttgc	ttgttttgata	agcttccact	2460
288	tgccggtcag	gaatctgggt	acccttctaa	ctgttgaggaga	acagtgccta	gaatggagcc	2520
290	actggcctgg	aggtggacat	taacaatcca	ctgaagggaat	gtgtgcaggg	aataactgaa	2580
292	cgaatgaatg	agcaacagaa	gtttctaggt	tttatcaagg	ccaaagagggt	tgcaaggggg	2640
294	aactaaagta	tagcgctgggt	ctcagatgtg	actcaagtct	ctgtcacctg	cctaacgcag	2700
296	ggatttttctt	ccttttgtag	aagccagttg	tgtagaagtt	gcacatctct	ctgaacccat	2760
298	ggcttgactc	caggagcccc	cattagaggt	aagcatcccc	accctacctt	ttaactgaag	2820
300	cgtgaacagg	gggaaaaaat	aatcccagcg	ggccccctgg	ggtgtatgaa	ccgggatgcc	2880
302	cacacccgga	tcccctgctc	tgctccccgc	cccatccccg	cagagggagc	ggtgccgggc	2940
304	gcggcaggtc	tccaagccga	ctaggctggc	gctggcgctc	gggctgcgct	ccttggtctg	3000
306	accgcattg	ccccctagt	ccgcacagag	tcagggcgcc	cgggcttccc	cgcctgatgt	3060
308	caccgccgtg	cagtcagccc	agaggcggt	cattgaaagc	agaccgcgcg	cgggccgggc	3120
310	acagccgggc	acccccggcc	cggcgccgcg	tcctccccgc	gctcccgcgc	cagcccggcc	3180
312	agggcgccct	gacgtggacc	attaaacttg	gagctccccg	ctcgtccctt	ctctcctcct	3240
314	cctccctctg	acaggcgagc	gagccgctgg	gtgcaggcag	gcgagggtgt	gccgggctag	3300
316	gctgcccggg	ggagatgact	tctcgccagg	aggacgcctc	tggaaagaag	accacggagg	3360
318	gagcaaagtt	tcagggcagc	tgaggagctt	tggtcgcagc	ccttccgagc	ccaatctcct	3420
320	ccctggctat	ggagggcgga	ctttaaagt				3450

VERIFICATION SUMMARY

PATENT APPLICATION: US/10/052,589

DATE: 04/11/2002

TIME: 13:46:13

Input Set : A:\264734200.txt

Output Set: N:\CRF3\04112002\J052589.raw